SWAMI RAMANAND TEERTH MARATHWADA UNIVERISTY,

NANDED- 431606 (M.S.) INDIA.

SHORT RESUME / SYNOPSIS OF PH.D. TOPIC

Entitled

"To Explore The Impact Of Feed On Growth Performance And Nutrient Composition Of Cyprinus carpio, Using Locally Available Ingredients".

Submitted to

THE FACULTY OF SCIENCE,

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"To Explore The Impact Of Feed On Growth Performance And Nutrient Composition Of Cyprinus carpio, Using Locally Available Ingredients".

1) **Abstract of Proposed plan:-**

Small freshwater fish species (SIFFs) constitute one of the major sources of nutritious food for human being as they provide balanced nutrition; subsistence and supplementary income to the rural population in India. The nutritive values of them depend upon their biochemical composition, such as protein, amino acids, lipid, fatty acids, carbohydrate, vitamins and minerals. This review addresses motivating interest in this attractive group of SIFFs by summarizing what little we do know about them comparing with other freshwater fish species found in India as well as different parts of the world. It is observed that SIFFs with a high content of MUFA (mono unsaturated fatty acid), PUFA (poly unsaturated fatty acid) as well as EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid); which makes them curative diet also. Until recently, possibilities of culturing them in combination with the IMC (Indian major carp) are unexplored. This study also exposed that the small and shallow water bodies may open-handedly be used for SIFFs culture and indicates the feasibility of attaining a good production of the same along with IMCs. Conservation strategy should be undertaken and taking SIFFs in every day diet may result in better and advanced protection against coronary heart disease (CHD) and other lifestyle related disease. Exploration of the nutritional eminence of them will encourage fish farmers to promote mixed culture of SIFFs in India in proper scientific way.

Introduction

Freshwater fish is an excellent and cheaper resource of animal protein with high biological value for a large section of the inhabitants in India [1]. In general, fish constitutes almost one-half of the total number of recognized vertebrate species [2]. Normally, worldwide freshwater fish production is mainly dependent on carps. Hence, India is regarded as a 'carp country' due to its prosperous diversity of carps in its freshwater ecosystem as it is blessed with at least 15-20 varieties of minor and medium carps that have a high potential for freshwater aquaculture, which has yet to be exploited [3]. With declining fisheries worldwide [4], still now aquaculture produces an escalating proportion of fish/seafood in the human food basket amounting to around 50% in 2008 to till recent year [5]. India, one of the 17 global mega biodiversity hotspots, is inhabitant to 2246 fin fish species out of which 838 are from fresh water [6]. Among them, total 450 fish species could be categorized as small indigenous freshwater fish species (SIFFs) out of 765 native freshwater species, and 239 of them are from West Bengal. In West Bengal the total production of inland fish was 15.30 lakh ton and marine fish was 2 lakh ton [7]. Regarding inland fish production, India ranks second, next to China [8]. Knowledge of these indigenous fish speciesand communities reveal crucial facts indispensable for the arrangement of ecosystem and habitats as well as to the preservation of important genomes and genes.

3) Objective of Research :-

- Collection of the fresh water fish cyprinus carpio from Nanded region (M.S.)
- Identication and Morphometic characters of the fish cyprinus carpio to be study
- Assement of Biochmical analysis of the fish cyprinus carpio
- Assement of Niturtional Value cyprinus carpio
- Assement factors influencing nutritional value in fish cyprins carpio

4) Methodology to be adopted :-

Fish will be collected and purchased from local market of Nanded. The identification of fish will be made with the help of classical work.

Diversity, biochemical, morphometric characters, reproductive organs will be carried out by standard method.

5) Study Area : Nanded Region M.S. India.

Importance of study :-

Fish is an important source of nutrients as it provides a good balance of proteins, vitamins, fats, lipids, minerals, etc and has a very low caloric content. The nutritional value and health benefits of the fishes are unrecognized and undervalued. Despite a lot of benefits in the health of human, people are still unaware of those benefits.

Fishes are good source of quality protein, but various diseases pose a threat to fish health. Several reports reveal that consumption of undercooked fishes serve as potent source of infection to humans and they are widely distributed across the world.

6) Proposed work Plane / Formulation and Structure of Study:

Year Wise Plan of workand Targets to be Achieved :-

First Year : Introduction, Referencing , Methodology, Visit to various localities of Nanded for collection of cyprinus carpio.

Second Year : Study of maturity, spawning and sex composition of cyprinus carpio & Nutritional Quality and nutrition for fish.

Third Year : Collection, preservation, staining, mounting and identification of cyprinus carpio and components required for fish feed preparation.

Fourth Year : Study of Nutritional value of cyprinus carpio. Biochemical composition photography

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